

SHEET 1 OF 1

INFORMATION DISCLOSURE CITATION		ATTY. DOCKET NO. P102-US		SERIAL NO. 10/627,155			
		APPLICANT Patel, et al					
		FILING DATE 7/24/03		GROUP Not Yet Assigned 2813			
U.S. PATENT DOCUMENTS							
EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE	
	6,522,454	02/18/03	Maler, et al.				
FOREIGN PATENT DOCUMENTS							
EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
EXAMINER	Stephen W. Smart			DATE CONSIDERED		1-9-2006	

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Substitute for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/627,155
		Filing Date	7/24/03
		First Named Inventor	Patel
		Art Unit	Not Yet Assigned 2813
		Examiner Name	Not Yet Assigned
Sheet 1 of 6	Attorney Docket Number	P102-US	

U.S. PATENT DOCUMENTS ¹						
Examiner Initials ²	Cite No. ³	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ⁴ (if known)			
		US-	6,511,737	05-12-1998	Howe, R.G.	
		US-	4,480,488	02-26-1980	Winters, H.P.	
		US-	4,319,369	12-12-1982	Plamm et al.	
		US-	4,488,968	02-12-1985	Cash et al.	
		US-	6,051,503	04-18-2000	Bhardwal, J.K.	
		US-	6,436,220	08-20-2002	Tal et al.	
		US-	6,463,367	12-10-2000	Tal et al.	
		US-	6,290,854 B1	09-18-2001	Patel et al.	
		US-	6,355,181 B1	03-12-2002	McQuarrie, A.D.	
		US-	2001/0002663 A1	08-07-2001	Tal et al.	
		US-	5,439,333	09-08-1995	Grant et al.	
		US-	2002/0033228 A1	03-21-2002	Leboulch et al.	
		US-	2002/0106534 A1	12-26-2002	Huthers, et al.	
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		US-	5,728,480	03-10-1998	Blaser, K.S.	
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		US-	2002/0047172 A1	04-29-2002	Rold	
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Examiner Initials ²	Cite No. ³	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code ⁵	Number ⁶ & Kind Code ⁴ (if known)			
		EP	0704884 A2	04-09-1996	Mohr, J.	
		EP	0822582 A1	02-04-1999	Bhardwal, J.K.	
		EP	0822584 A2	04-04-1999	Bhardwal, J.K.	
		WO	00/49568	09-30-1999	McQuarrie, A.D.	
		EP	0878924 A2	11-18-1998	McQuarrie et al.	
		EP	0878924 A3	01-19-2000	McQuarrie et al.	
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		JP	1983/56136328 A	08-04-1983	Yoshikawa et al.	
		JP	4096/80057938 A	04-09-1985	Katsumi et al.	
		WO	00/32143	07-23-1999	Tal et al.	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary).		Application Number	10/827.155
		Filing Date	7/24/03
		First Named Inventor	Patel
		Art Unit	Not Yet Assigned - 2813
		Examiner Name	Not Yet Assigned
Sheet 2 of 8	Attorney Docket Number	P102-US	

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No. 1	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code 2 (if known)			
		US- 6,406,670-B1	06-28-2003	McGuire, et al.	
		US- 6,396,610-B1	06-28-2002	Hulbert, et al.	
		US- 6,576,483-B2	08/18/03	Lewin, et al.	
		US- 6,218,584	05-29-2001	Hawkins, et al.	
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		US- 6,204,080	09-20-2001	Hwang	
		US- 2003/0071015-A1	04/17/03	Chinn, et al.	
		US- 2002/0464870-A1	11/07/02	Luong, et al.	
		US- 2002/0183051-A1	11/07/02	Gosel, et al.	
		US- 2002/0077876-A1	04/24/03	Kumar, et al.	
		US- 6,197,610-B1	02/03/2001	Toda	
		US- 6,580,360-B2	12/31/02	Goh, et al.	
		US- 2003/0424848-A1	07/03/03	Chinn, et al.	
		US- 2003/0240886-A1	11/27/03	Rodner, et al.	
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		Country Code 3 - Number 4 - Kind Code 5 (if known)			
		JP-1997108291581-A	09-23-1997	Kazuki, et al.	
		JP-199810343428-A	11-24-1998	Monami, et al.	
		JP-199810347468-A	12-02-1998	McGuire, et al.	
		JP-1999101187238-A	09-30-1999	Nobuo, et al.	
		JP-1999101270830-A	12-01-1999	Toru, T.	
		JP-1997102071247-A	04-01-1997	Toru, et al.	
		JP-1998103466743-A	08-29-1998	Tedashi, F.	
		JP-1998103466793-A	03-17-1998	Arata, et al.	
		JP-1998101134019-A	06-24-1998	Shinji, et al.	
		JP-1998101181121-A	06-12-1998	Shinji, et al.	

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¹ Applicant's unique citation designation number (optional). ² See Kind Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language translation is attached.

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		Filing Date	7/24/03
		First Named Inventor	Patel
		Group Art Unit	Not Yet Assigned
		Examiner Name	Not Yet Assigned
		Attorney Docket Number	P102-US
Sheet	4	of	8

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS		
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issues number(s), publisher, city and/or country where published
		ALLEY et al., "Development of Si(100) Surface Roughness at the Initial Stage of Etching in F2 and XeF2 Gases: Ellipsometric Study", Surface Science 442 (1999), pp. 206-244.
		GLIDENHEISTER, J.M., "Xenon Diffusion Etching System" (Nov. 17, 1997).
		HASUKA et al., "Dominant Overall Chemical Reaction in a Chlorine Trifluoride-Silicon-Nitrogen System at Atmospheric Pressure", Japan Journal of Applied Physics Vol. 38 (1999), pp. 6466-6469.
		MESCHT et al., "A Novel X-ray Photoelectron Spectroscopy Study of the Al/SiO2 Interface", J. Appl. Phys. Vol. 67 (June 15, 1985), pp. 5258-5261.
		HOLLE, P.A., "Dynamics of SiF4 Desorption During Etching of Silicon by XeF2", IBM Almaden Research Center (Apr 16, 1987), pp. 186B-1872.
		FLAMM et al., "XeF2 and F-Atom Reactions with Si: Their Significance for Plasma Etching", Solid State Technol. 28, 117 (1989).
		IBBOTSON et al., "Plasmaless Dry Etching of Silicon with Fluorine-containing Compounds", J. Appl. Phys. Vol. 56 No. 40 (Nov. 1984), pp. 2839-2842.
		IBBOTSON et al., "Comparison of XeF2 and F-atom Reactions with Si and SiO2", Applied Physics Letters, Vol. 44, 1429 (1984).
		STRELLER et al., "Selectivity in Dry Etching of Si (100) and XeF2 and VUV Light", Glasier Science & V., Applied Surface Science Vol. 106 (1996), pp. 241-246.
		VUGTS et al., "Si/XeF2 Etching: Temperature Dependence", J. Vac. Sci. Technol. A 14(5) (Sep/Oct 1996), pp. 2768-2774.
		WINTERS, H.F., "Etch Products from the Reaction of XeF2 with SiO2, SiO3, Si3N4, SiC, and Si in the Presence of Ion Bombardment", J. Vac. Sci. Technol. B 1(4) (Oct/Dec 1983), pp. 957-961.

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Substitute for form 1449B/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Application Number	10/827,155
		Filing Date	7/24/03
		First Named Inventor	Patel
		Group Art Unit	Not Yet Assigned
		Examiner Name	Not Yet Assigned
Sheet 5 of 8	Attorney Docket Number	P102-US	

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS		
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		Kurt Williams, <i>Grit Rates for Micromachining Processing</i> , Part II, 2003 IEEE, Pgs 704-778, <i>Journal of Microelectromechanical Systems</i> , Vol. 12, No. 6, December 2003.
		WINTERS et al., "The Etching of Silicon with XeF ₂ Vapor", <i>Appl. Phys. Lett.</i> , Vol. 34(1) (January 1, 1979), pp. 70-72.
		XACTIX, Inc., Marketing Brochure (June 27, 1999).
		"Xenon Difluoride Isotropic Etch Systems: Seeing is Believing", Surface Technology Systems Ltd. brochure, Newport, UK (date unknown).
		CHU et al., "Controlled Pulse Etching with Xenon Difluoride", <i>International Solid State Sensors and Actuators Conference (Transducers 97)</i> , Chicago, IL, Vol. 1 (June 10-19, 1997), pp. 689-698 (abstract only).
		SASSON et al., "Modeling and Optimizing XeF ₂ -enhanced P18 Milling of Silicon", <i>25th International Symposium for Testing and Failure Analysis</i> , Santa Clara, CA (Nov. 14-18, 1999), pp. 235-281 (abstract only).
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		CHAN et al., "Gas Phase Pulse Etching of Silicon for MEMS with Xenon Difluoride", <i>Engineering Solutions for the Next Millennium: 1999 IEEE Canadian Conference on Electrical and Computer Engineering</i> , Edmonton, Alberta, Vol. 3 (May 8-12, 1999), pp. 1627-1642 (abstract only).
		CHANG et al., "Gas-Phase Silicon Micromachining with Silicon Difluoride", <i>Proceedings of the SPIE - The International Society for Optical Engineering</i> , Vol. 2641 (1995), pp. 117-128 (abstract only).

Examiner Signature	<i>Stephen W. Smart</i>	Date Considered	1-9-2006
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		Filing Date	7/24/03
		First Named Inventor	Patel
		Group Art Unit	Not Yet Assigned
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Sheet 6 of 6	Attorney Docket Number	P102-US	

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
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		SEBEL et al., "Reaction Layer Dynamics in Ion-Assisted Si/KaF ₂ Etching: Temperature Dependence", J. Vac. Sci. Technol. A, Vac. Surf. Films, Vol. 18, No. 5, (Nov. 2000), pp. 2760-2769 (abstract only).	
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		MUTHUKUMARAN et al., "Gas-Phase Xenon Difluoride Etching of Microsystems Fabricated Through the Multi-1.6-µm CMOS Process", Gen. J. Elect. Comput. Eng. (Canada), Vol. 25, No. 4 (Jan. 2000), pp. 39-41 (abstract only).	
		TOGA et al., "Thin Beam Bulk Micromachining Based on RIE and Xenon Difluoride Silicon Etching", International Solid State Sensors and Actuators Conference (Transducers '97), Chicago, IL, Vol. 1 (June 16-19, 1997), pp. 671-674.	
		SEBEL et al., "Etching of Si Through a Thick Condensed KaF ₂ Layer", J. Vac. Sci. Technol. A, Vac. Surf. Films, Vol. 18, No. 6 (Sep/Oct 2000), pp. 2090-2097 (abstract only).	

Examiner Signature	<i>Stephen H. Siroot</i>	Date Considered	1-9-2006
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